IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of	)	**MAIL STOP AF**
	)	
Takeshi Morikawa et al.	)	Group Art Unit: 2625
	)	
Application No.: 10/772,443	)	Examiner: Marcus T. Riley
	)	
Filed: February 6, 2004	)	Confirmation No.: 5146
	)	
For: DATA PROCESSING APPARATUS	)	
	)	

APPLICANTS' SEPARATE RECORD OF TELEPHONE INTERVIEW

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants appreciate the courtesies shown to Applicants' representative during the October 20, 2011 telephone interview. The following is Applicants' separate record of the telephone interview.

According to independent Claim 1, when a processing request is issued for processing of the data for a <u>next job</u> by the compression/decompression unit(s) during processing of the data for a **current job** by the compression/ decompression unit(s), the controller performs processing comprising: a) obtaining the processing wait period **between** individual pages of the **current job**, b) obtaining the minimum processing time for the <u>next job data</u>, c) comparing the processing wait period **between** individual pages of the **current job** with the minimum processing time for the <u>next job data</u>, d) determining whether or not the processing wait period is longer than the minimum processing time, based on a comparison between the minimum processing time for the next job data and the processing wait period, and e) controlling the execution of processing of data for the next job by the compression/ decompression unit(s) in accordance with this determination.

Buchanan Ingersoll &. Rooney PC
Attorneys &. Government Relations Professionals

Independent Claim 11 defines a data processing apparatus including similar features.

To assist the Examiner's understanding of the claimed apparatus, Applicants' representative referred to paragraph [0019] of the published U.S. application (U.S. 2005/0044549 A1). As discussed in this paragraph, if the processing wait period **between** pages of the **current job** is longer than the minimum processing time for the next-job data, at least minimal processing of the next-job data can be performed during the processing wait period for the **current job**, and therefore next-job processing is carried out **between** pages of the **current job**. Conversely, if the processing wait period between pages of the current job is shorter than the minimum processing time for the next-job data, processing of the current job would be delayed by the execution of processing of the next-job data during the processing wait period for the current job. Therefore next-job processing is put on hold. As explained in paragraph [0020] of the published U.S. application, because next-job processing is conducted only so long as there is no effect on current job processing as described above, there is no reduction in productivity due to a delay in current-job processing.

The Office Action acknowledges that Yoshida fails to disclose a controller that performs a), b), c) and d), above. In an attempt to remedy this deficiency, the Office Action refers to Shima.

As discussed during the interview, Shima is concerned with deciding whether to print a plurality of pages of a print job at the same time in one printing process, i.e., "n page unit printing" (see col. 1, lines 19-25 and 41-46 of Shima), or to print the plurality of pages of that print job one at a time in sequence (i.e., "1 up printing"). Whether "2 up printing" is effective depends on the waiting time for the data of the two pages that are to be printed to reach the print engine. Shima discloses that in

order to print two pages of a print job at once ("2 page unit printing" or "2 up printing"), the printer has to perform data processing for the two pages and supply the data to the print engine (see col. 1, line 64 to col. 2, line 3 of Shima). If the time it takes for the data of page 2 to reach the print engine after the data for page 1 has reached the print engine is relatively long, there may be a case where printing can be finished earlier by printing each page sequentially ("1 up printing") rather than waiting for the page 2 data to reach the print engine in "2 up printing" (see col. 2, lines 4-9 of Shima). Thus, whether "2 up printing" is effective depends on the waiting time for the data of the two pages together to reach the print engine. As discussed during the interview, the determination is exemplified in Figs. 4(a)-4(c) of Shima.

As shown in Fig. 4(a) of Shima, if the data of the two pages together reaches the print engine by the maximum waiting time T, "2 up printing" is effective (see col. 2, lines 10-18 and col. 9, lines 24-36 of Shima). On the other hand, if the data of the two pages together reaches the print engine *after* the maximum waiting time T, as shown in Fig. 4(b) of Shima, "2 up printing" is not effective (see col. 9, lines 14-23 of Shima). Further, "2 up printing" is effective if the time "t" it takes for the page 2 by itself to reach the print engine is shorter than the maximum waiting time T, as shown in Fig. Fig. 4(c) of Shima (see col. 9, lines 53-63 of Shima).

Based on Figs. 4(a)-4(c) of Shima, the Office Action takes the position that Shima discloses obtaining the processing wait period between individual pages of the current job as recited in independent Claims 1 and 11. However, as discussed during the interview, Shima is concerned with the *total processing time* of the two pages, i.e., the total time of the sheets from point (1) to point (3) in Figs. 4(a) and 4(b). Shima does not calculate a processing wait period *between* individual pages (i.e., between the first "t" and the second "t" from point (1) to point (3) in Figs. 4(a)

and 4(b)) of the "2 up printing" job. Further, in Fig. 4(c) Shima simply measures the time beginning at the start of the second sheet (i.e., the second "t" in Fig. 4(c)), and compares that time with the maximum waiting time T.

The Examiner asked during the interview if the maximum waiting time T in Figs. 4(a)-(c) is the time between pages of the print job. As discussed during the interview, the answer is no. Shima states in col. 2, lines 11-13 that the maximum waiting time T is "the critical waiting time in which the effect of the 2 up printing can be achieved". Shima goes on to say in col. 2, lines 13-18:

> **This waiting time is obtained by deducting the time required for 2 up printing from the time required for printing 2 pages by 2 times of 1 up printing**. If the data of the 2 pages reaches the engine member by the maximum waiting time T, 2 up printing is effective.

> For example, if the time required for printing 2 pages by 2 times of 1 up printing [i.e., conventional printing of the pages in sequence] is 20 seconds and the time required for 2 up printing is 11 seconds, the maximum waiting time T is 9 seconds. If the data of page 2 reaches the engine member within 9 seconds after the data for page 1 reaches the engine member, it means that 2 up printing is effective.

Clearly, the maximum waiting time T is not a time period between the two pages. Rather, it is the difference between the time required for conventionally printing the two pages and the time required for 2 up printing. Thus, as discussed during the interview, Shima does not disclose obtaining the processing wait period *between* individual pages of the current job as defined in independent Claims 1 and 11. Nor is there any reason for Shima to be concerned with processing wait period *between* individual pages of the current job.

Moreover, as discussed during the interview, Shima compares (i) the waiting time required for the data of the two pages in "2 up printing" to reach the print engine, with (ii) the maximum waiting time T in normal sequential page printing, of

the *same print job*. This is so Shima's printer can determine the most effective

printing mode (i.e., "n up printing" or normal sequential page printing ("1 up

printing")) for the current print job. As discussed during the interview, Shima does

not disclose comparing processing waiting times of a *current job* with those of *next*

job as defined in independent Claims 1 and 11 here.

That is, Shima does not disclose a) obtaining a processing wait period

between individual pages of a *current job*, b) obtaining the minimum processing time

for the *next job* data, c) comparing the processing wait period between individual

pages of the *current job* with a minimum processing time for a *next job* data, and d)

determining whether or not the processing wait period is longer than the minimum

processing time, based on a comparison between the minimum processing time for

the next job data and the processing wait period between pages as recited in

independent Claim 1, and similarly recited in independent Claim 11.

Further, Obata fails to cure these deficiencies of Yoshida and Shima. Thus,

independent Claims 1 and 11 are patentable over the combination of Yoshida,

Shima and Obata for at least the above reasons.

Independent Claim 4 recites a data processing apparatus comprising one or

more compression/decompression unit(s) that compress the data for an input job

and decompress the compressed data, and a controller. When a processing request

is issued for processing of the data for a next job by the compression/decompression

unit(s) during processing of the data for a current job by the compression/

decompression unit(s), the controller performs processing comprising: a) **identifying**

an attribute of the next job, b) determining whether processing of data for the next

job by the compression/decompression unit(s) within the processing wait period is

possible or not, **based on the identified next job attribute**, and c) controlling the

execution of processing of data for the next job by the compression/decompression unit(s) **between** individual pages of the current job in accordance with this determination.

The Office Action continues to state that Claim 4 contains substantially the same subject matter as Claim 1. However, Claim 1 and the Office Action are both silent with regard to *identifying an attribute of the next job*, and determining whether processing of data for the next job by the compression/ decompression unit(s) within the processing wait period is possible or not, *based on the identified next job attribute*. Thus, as discussed during the interview, the Office Action does not provide any basis for rejecting independent Claim 4 and fails to comply with 37 C.F.R. §1.104(c)(2), which states that when a reference is complex or shows or describes inventions other than that claimed by the applicant, *the particular part relied on must be designated*.

In addition, for at least the reasons discussed above, the combination of Yoshida, Shima and Obata fails to disclose or suggest controlling the execution of processing of data for a next job by compression/decompression unit(s) **between** individual pages of the current job in accordance with this determination, as recited in independent Claim 4. Thus, independent Claim 4 is patentable over the combination of Yoshida, Shima and Obata for at least the above reasons.

Respectfully submitted,
BUCHANAN INGERSOLL & ROONEY PC

Date: October 24, 2011   By: /David R. Kemeny/
                                     David R. Kemeny
                                     Registration No. 57241

Customer No. 21839
703 836 6620